

Syphilis

From 1990 to 1998, the U.S. primary and secondary (P&S) syphilis rate declined 87 percent to its lowest level since reporting began in 1941. While the U.S. syphilis rate is low and the disease is geographically concentrated, a concerted effort could lead to its elimination in the United States. Collaboration with diverse organizations, public health professionals, the private medical community, and other partners working in STD and HIV will be essential in this effort¹.

Despite the overall decline, syphilis remains an important problem in the South and in a small number of urban areas outside the South, particularly among African-Americans. Syphilis, a genital ulcerative disease, facilitates the transmission of HIV and may be particularly important in contributing to HIV transmission in those parts of the country, such as the South, where rates of both infections are high. Untreated early syphilis during pregnancy results in perinatal death in up to 40% of cases, and if acquired during the previous four years before pregnancy, may lead to infection of the fetus in over 70% of cases. For syphilis, as for other STDs, differential reporting of cases from public and private sectors may magnify the differences in reported rates by race and ethnicity.

- In 1998, 6,993 cases of P&S syphilis were reported to CDC. This is the lowest number of cases reported since 1958. Between 1997 and 1998 the incidence of P&S syphilis in the U.S. declined from 3.2 to 2.6 cases per 100,000 persons (Figure 26, Table 1), and has been below the Healthy People 2000 (HP2000) national objective of 4.0 per 100,000 persons for the last two years.
- Since 1990 the rate of early latent syphilis has exceeded the rate of P&S syphilis. There were approximately 0.8 reported cases of early latent syphilis for every reported case of P&S syphilis in the five years preceding 1990 and 1.8 reported cases of early latent syphilis for every reported case of P&S syphilis in 1998 (Table 1).
- Since the peak of late and late latent syphilis in 1993, the rate of late and late latent syphilis has exceeded the rate of P&S syphilis and grows proportionately greater every year. There were approximately 0.6 reported cases of late and late latent syphilis for every reported case of P&S syphilis in the five years preceding 1993 and 2.5 reported cases of late and late latent syphilis for every reported case of P&S syphilis in 1998 (Table 1).
- In 1998, P&S syphilis rates in 40 states and 1 outlying area were below the HP2000 national objective of 4 cases per 100,000 (Figure 27, Table 24). Fourteen states and 1 outlying area reported 5 or fewer cases of P&S syphilis in 1998.
- In 1998, 2,430 (78%) of 3,115 counties in the U.S. reported no cases of P&S syphilis compared with 2,324 (75%) of counties in 1997. Of 685 counties reporting at least one case of P&S syphilis in 1998, 373 (54%) counties reported rates of 4 cases or fewer per 100,000 persons. Therefore, rates of P&S syphilis were above the HP2000 objective for 312 counties in 1998 (Figure 28). These

counties (10% of the total number of counties in the U.S.) accounted for approximately 76% of the reported P&S syphilis cases.

- In 1998, the largest numbers of reported cases of P&S syphilis were found in 25 counties, and the three independent cities of Baltimore, St. Louis, and the District of Columbia (Table 32). These 28 areas account for half of the total number of reported P&S syphilis cases.
- In 1998, the rates of P&S syphilis continued to decline in the Northeast, Midwest, and the South. However, the rate of 5.1 cases per 100,000 persons in the South remained above the HP2000 objective (Figure 29, Table 25). The P&S syphilis rates of the other 3 regions were below the HP2000 objective.
- Rates for P&S syphilis were calculated within the U.S. and each geographic region for each of 4 defined urban-to-rural categories (see Figure 30 and the Appendix for definitions of the categories). In general, P&S syphilis rates for urban-to-rural categories of the South dominated the corresponding rates of the other three regions. Of the 6,969 cases of P&S syphilis reported at the county level for 1998, about 69% occurred in the South. In 1998, the highest rate (5.6 per 100,000 population) was found for urban counties of the South. The South accounted for 64% of all P&S cases that occurred in urban counties, and 93% of all P&S cases that occurred within each of the other three categories of counties (peri-urban, peri-rural, and rural). Within the South, rural counties had the lowest rate (2.5 per 100,000). However, this rate was substantially higher than the rates found for rural counties in each of the other regions, and was about 2 to 3 times greater than the rates for urban counties in the West and Northeast. In the West, Midwest, and Northeast, the highest rates were typically found in urban counties.
- The overall rate of P&S syphilis in selected large cities over 200,000 population declined from 6.0 cases per 100,000 persons in 1997 to 5.1 in 1998 (Figure 31, Table 29). However, rates exceeded the HP2000 objective in 24 (38%) of 64 large cities in the United States and outlying areas for which data were available (Table 28).
- During the period 1994 to 1998, the rates of P&S syphilis within racial and ethnic groups have generally declined (Figure 33, Table 23B). However, the 1998 rate for non-Hispanic blacks of 17.1 cases per 100,000 persons was 34 times greater than the rate for non-Hispanic whites.
- Between 1997 and 1998, the overall rate of congenital syphilis decreased from 27.5 to 20.6 cases per 100,000 live births (Figure 36, Table 37)². However, compared with 1997, increases were observed in 1998 for 6 (Arizona, Missouri, New Jersey, North Carolina, Oklahoma, and South Carolina) of 21 states reporting more than 5 cases and for Puerto Rico (Table 39).
- In 1998, 3 states (Arkansas, Maryland, and New Jersey) and Puerto Rico had congenital syphilis rates that exceeded the HP2000 objective of 40 cases per 100,000 live births (Table 38).
- The HP2000 congenital syphilis objective of 40 cases per 100,000 live births was exceeded in 24 (38%) of the 64 selected cities with a population over 200,000 (Table 40). For 5 of these cities (Baltimore, Houston, Miami, Newark, and Oklahoma City), the rate per 100,000 births was 3 to almost 13 times greater than the HP2000 objective.

- Additional information on syphilis and congenital syphilis can be found in the **Special Focus Profiles** section.

¹CDC. Primary and secondary syphilis—United States, 1997. *MMWR* 1998;24:493-7.

²CDC. Congenital syphilis—United States, 1998. *MMWR* 1998;48:757-61.

Figure 25. Syphilis — Reported cases by stage of illness: United States, 1941–1998

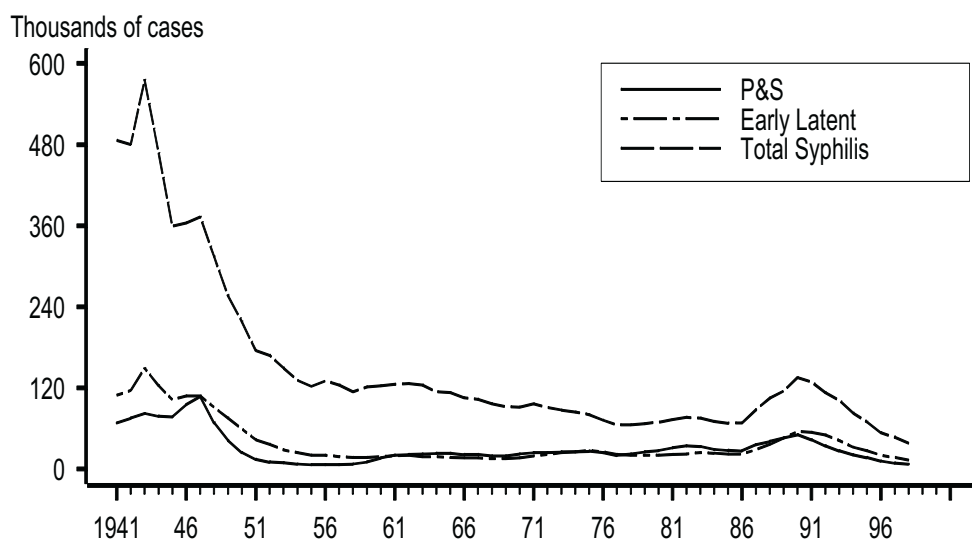


Figure 26. Primary and secondary syphilis — Reported rates: United States, 1970–1998 and the Healthy People year 2000 objective

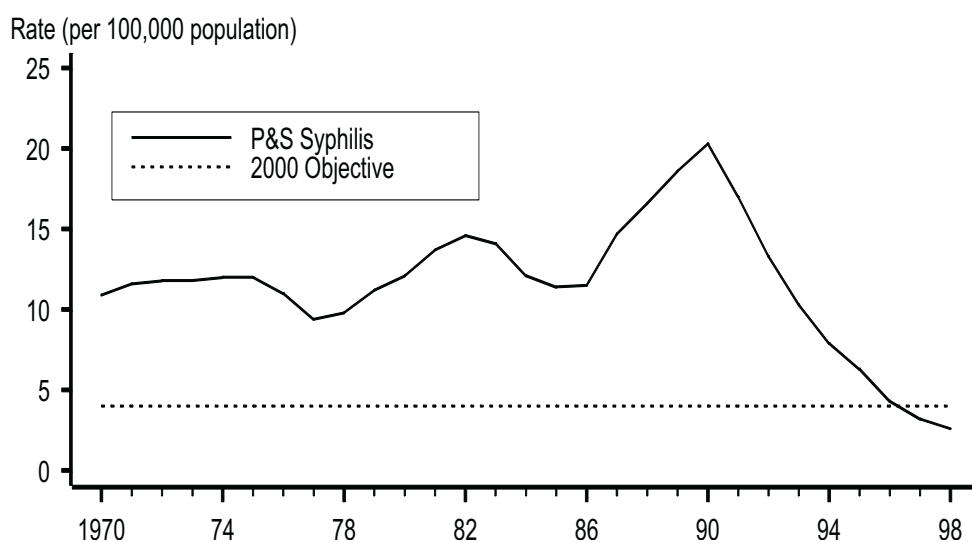
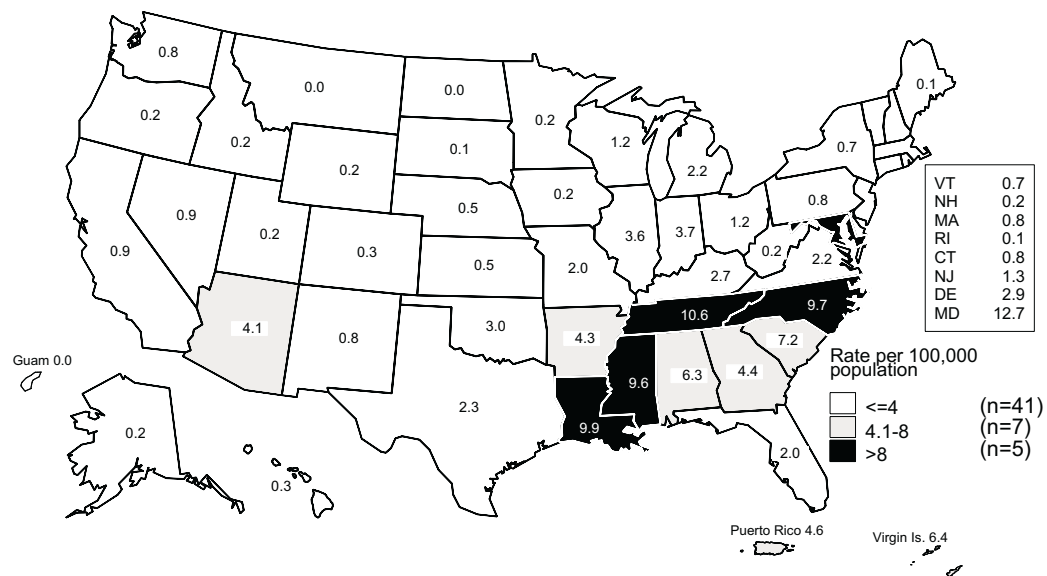


Figure 27. Primary and secondary syphilis — Rates by state: United States and outlying areas, 1998



Note: The total rate of primary and secondary syphilis for the United States and outlying areas (including Guam, Puerto Rico and Virgin Islands) was 2.6 per 100,000 population. The Healthy People year 2000 objective is 4.0 per 100,000 population.

Figure 28. Primary and secondary syphilis — Counties with rates above and counties with rates below the Healthy People year 2000 objective: United States, 1998

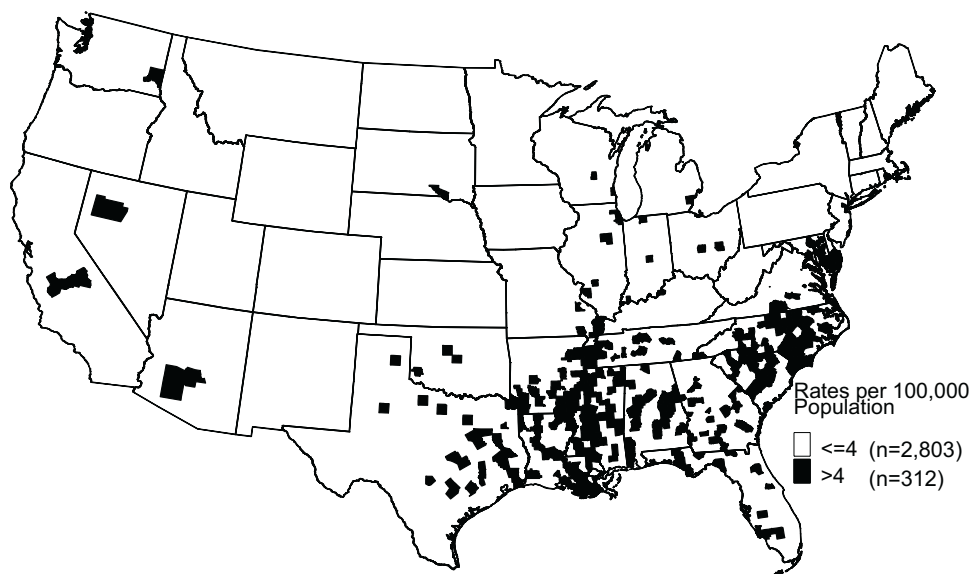


Figure 29. Primary and secondary syphilis — Rates by region: United States, 1981–1998 and the Healthy People year 2000 objective

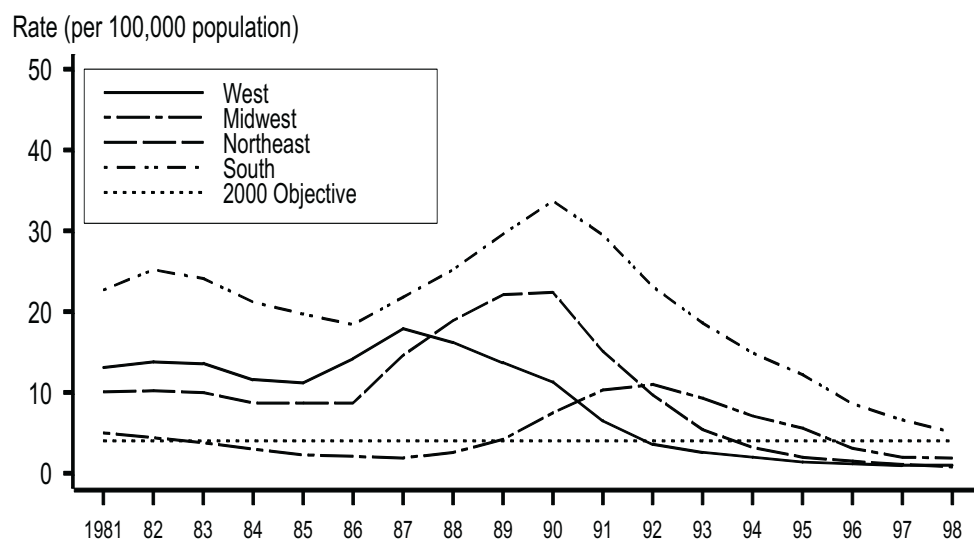
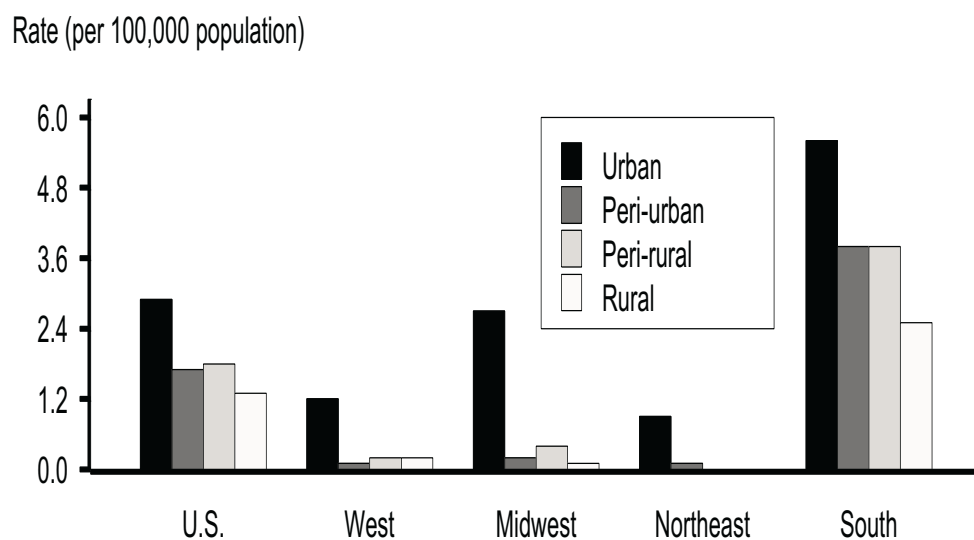


Figure 30. Primary and secondary syphilis — Rates by urban-rural category and geographic region, 1998



Note: See Appendix for definitions and source of urban-to-rural categories.

Figure 31. Primary and secondary syphilis — Rates in selected U.S. cities of >200,000 population, 1981–1998 and the Healthy People year 2000 objective



Figure 32. Primary and secondary syphilis — Rates by gender: United States, 1981–1998 and the Healthy People year 2000 objective

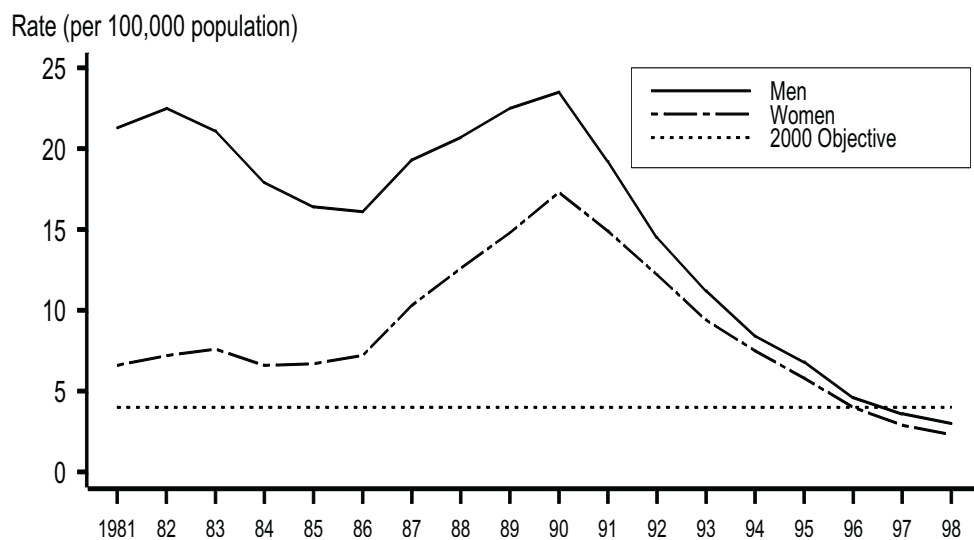
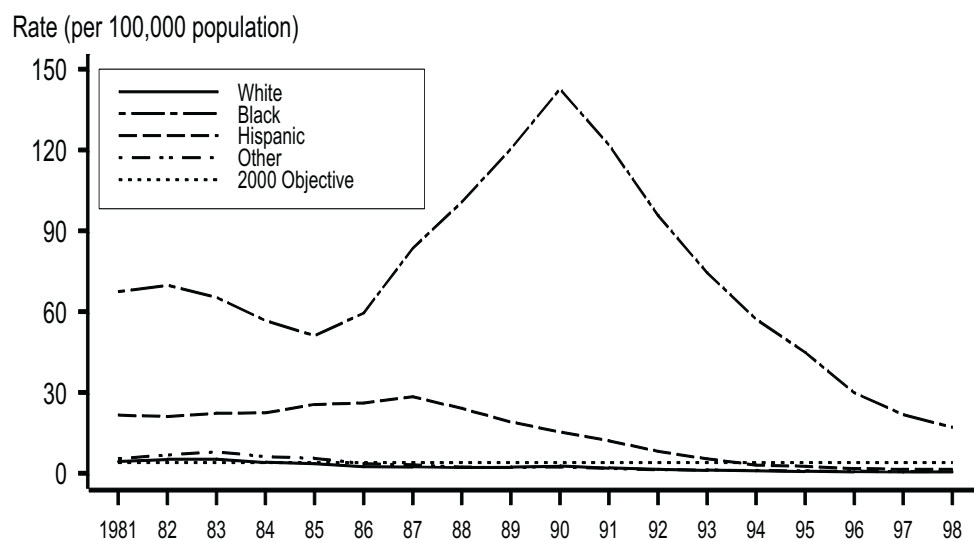


Figure 33. Primary and secondary syphilis — Rates by race and ethnicity: United States, 1981–1998 and the Healthy People year 2000 objective



Note: "Other" includes Asian/Pacific Islander and American Indian/Alaska Native populations. Black, White, and Other are non-Hispanic.

Figure 34. Primary and secondary syphilis — Age- and gender-specific rates: United States, 1998

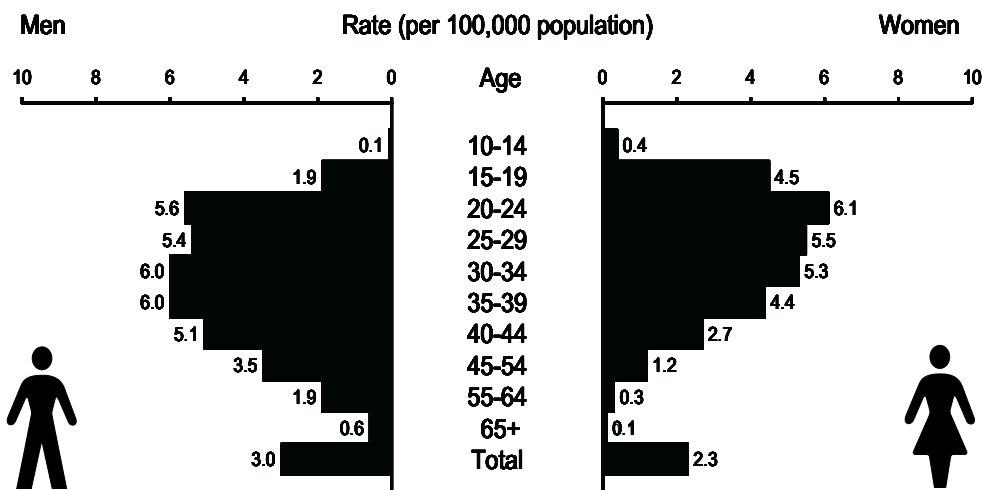
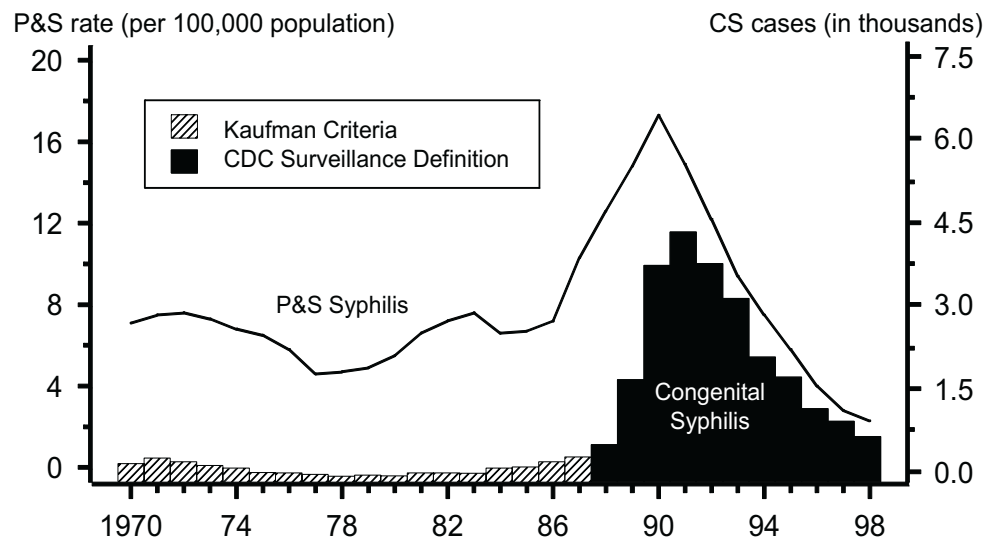
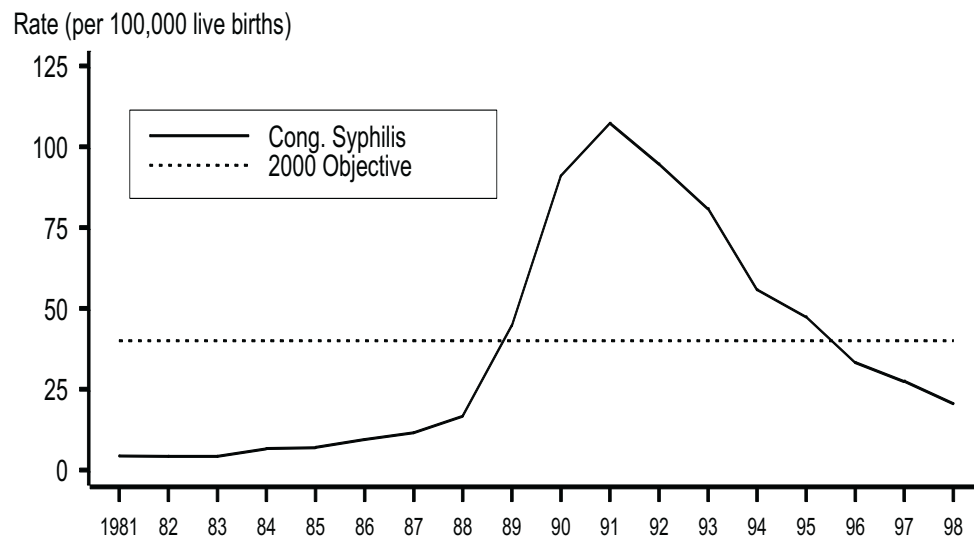


Figure 35. Congenital syphilis — Reported cases for infants <1 year of age and rates of primary and secondary syphilis among women: United States, 1970–1998



Note: The surveillance case definition for congenital syphilis changed in 1988 (see Appendix).

Figure 36. Congenital syphilis — Rates for infants <1 year of age: United States, 1981–1998



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